

Flexible Contracting Approach: Mitigating the Challenges of Technology Maturation

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Responding to a transforming Army, project and product managers (PMs) must be able to transition programs from the technology base into the acquisition system with an approach that maximizes flexibility and reduces risk. The transition period encompasses critical program events to include solidification and approval of requirements and completion of technology readiness activities prior to Milestone B. During this period, PMs face the dilemma of trying to verify system readiness efficiently while at the same time working toward addressing requirements.

This article examines a common occurrence: a technology base program preparing for transition into the acquisition system, but still needing to demonstrate an acceptable technology readiness level (TRL)—in other words, the program’s “technical report card” requires improvement.

During this period, the PM is typically completing the requirements process, which primarily includes completion of an analysis of alternatives, and briefing the requirements through the Service and DoD requirements oversight process. In addition, the PM is briefing the Army leadership to solidify the program’s spiral and/or incremental development strategies. Also, the PM may be completing efforts to increase the TRL of an item’s major subsystems to an acceptable state. Often, however, available research, development, test, and evaluation (RDTE) funds are limited prior to system demonstration and development. Therefore, completing TRL improvements must be accomplished as efficiently and economically as possible, and must utilize maximum contracting flexibility. Because of the likely need to address changes in the requirements, it may be very difficult to write a specific statement of work during this period.

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The Office of the Product Manager for Mortar Systems (PM Mortars) was faced with the dilemma described above during its efforts to complete critical activities during the component advanced development (CAD) phase of the precision guided mortar munition (PGMM) program. Working with the contracting officer, the PM established a task order contract with a ceiling price to complete CAD program efforts. The task order contract statement of work (SOW) included a “blanket” description of capabilities required for the tasks to be completed throughout the duration of the contract’s period of performance.

The principal advantage of this approach was that it permitted the government to pursue multiple tasks in parallel with contractor teams. It also allowed for quick reaction time to address changing requirements, both technically and programmatically. In this case, both the combat developer and milestone decision authority (MDA) desired that certain tasks (which included software security, performance enhancement/maturation of component capabilities) be completed during this pre-systems readiness phase and work in conjunction with the ongoing analysis of alternatives (AoA). For example, the munition's warhead was required to be able to defeat personnel under protective cover. During the AoA, state-of-the-art modeling and simulation capabilities could not definitively determine if a warhead of this size and type could meet its requirements with an acceptable level of overmatch and a reasonable cost. A warhead testing task was, therefore, quickly scoped, scheduled, and negotiated by the government/contractor team using "alpha contracting" procedures. (Alpha

contracting is a technique that uses a team approach to prepare, evaluate, and award proposals in substantially less time than the traditional approach. The Alpha technique involves the contractor, Defense Contract Audit Agency (DCAA), Defense Contract Management Command (DCMC), program office staff, and the contracting and pricing personnel working together to develop, evaluate, and negotiate the contract in a more expeditious manner using parallel processes.) Within 30 days of initiation, the effort had been signed by the procuring contracting officer and was under way. The test was carried out and completed well before the program's Milestone B review, where this key component of system effectiveness was reviewed and accepted by the MDA.

The fixed-price tasks, once established, were manageable and short in duration. This task order approach can be very useful when there is uncertainty regarding the program's budget. Flexibility and responsiveness become key positive features of this approach.

One interesting aspect of this approach involved the labor rates established on the base contract. Because of the un-

certainty of the scope of the tasks that were to be performed, composite rates were negotiated up front with the proposed contractor that were slightly higher than a cross section of rates and labor categories typically found in most task contracts. This helped to reduce our industry partner's risk, given the initial uncertainty in the number and scope of tasks to be executed. However, the PM office believes that the composite rates did not cause the efforts to be any more costly than using the traditional cost plus type of contract. Composite rates eliminated the delays associated with negotiating a variety of different labor categories to perform a given task. The task was described and the proper mixes of personnel were established during alpha contracting meetings. The bottom line was a total cost to perform the effort or deliver the product. The cost, once agreed upon, was firm-fixed price.

One negative aspect of this contracting method was the reluctance of the system contractor to perform a task-type contract that was more limited in scope

than a traditional long-term cost reimbursement contract. The reluctance was probably most attributable to the uncertainty related to the time phasing and scope of future tasks.

The acquisition community must continue to develop innovative solutions that provide maximum flexibility at reasonable costs to the program office. Innovation and creative thinking are not exclusive to the design of products; they are also required for effective acquisition and contracting. Acquisition policy provides the acceptable guidelines and boundaries in which the PM community has to operate. However, creativity is required to meet the unique needs of a program and make the most efficient use of our scarce research and development resources.



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